

Division 3. Air Resources Board

Chapter 2. Enforcement of Vehicle Emission Standards and Surveillance Testing

Article 2.3. In-Use Vehicle Enforcement Test Procedures

§ 2139. Testing.

After the vehicles have been accepted and restorative maintenance, if any, has been performed, the ARB or its designated laboratory shall perform the applicable emission tests pursuant to the following:

(a) For passenger cars and light-duty trucks, in-use compliance emission tests shall be performed pursuant to section 1960.1 or 1961, Title 13, California Code of Regulations, as applicable.

(b) For medium-duty vehicles certified according to the chassis standards and test procedures specified in section 1960.1 or 1961, Title 13, California Code of Regulations and the documents incorporated by reference therein, in-use compliance emission tests shall be performed pursuant to section 1960.1 or 1961, Title 13, California Code of Regulations, as applicable.

(c) For medium-duty engines and vehicles certified according to the optional engine test procedures specified in section 1956.8, Title 13, California Code of Regulations and the documents incorporated by reference therein, in-use compliance emission tests shall be performed pursuant to one of the following procedures:

(1) The engines of medium-duty vehicles may be tested pursuant to the engine test procedures specified in section 1956.8, provided that the manufacturer or its designated laboratory conduct procurement and enforcement testing pursuant to Sections 2136 through 2140, Title 13, California Code of Regulation, at the manufacturer's expense.

For manufacturers that have only one engine family or test group, the manufacturer or its designated laboratory that have more than one engine family or test group, the manufacturer or its designated laboratory shall procure no more than fifteen vehicles per engine family or test group. For manufacturers that have more than one engine family or test group, the manufacturer or its designated laboratory shall procure and test at the manufacturer's expense no more than one-third of its engine families or test groups and no more than fifteen vehicles from each engine family or test group. For the purposes of this section, "one-third" of a manufacturer's engine families or test groups shall be determined by dividing the number of distinct engine families or test groups by three, adding 0.5, and truncating the result to the nearest whole number.

The specific engine families or test groups subject to enforcement testing shall be selected by the ARB. The manufacturer or its designated laboratory shall begin the engine procurement process within 10 working days of notification by the ARB and shall complete testing within 100 working days of notification by the ARB. The Executive Officer shall approve the manufacturer's procurement procedures in advance of their use by the manufacturer. The Executive Officer shall approve a manufacturer's procurement procedures if engines are screened according to the criteria specified in section 2137, Title 13, California Code of Regulations and selected randomly from registration records compiled and prepared by R. L. Polk and Company or a comparable source. In addition, no vehicle shall be selected for enforcement testing with mileage less than 60 percent of the useful-life mileage without prior approval from the Executive Officer. The manufacturer shall permit an ARB representative to witness procurement, restorative maintenance, and enforcement testing. The Executive Officer shall have the authority to accept or reject a test engine based upon criteria specified in section 2137. Once an engine has been tested and determined to be in compliance with the current in-use emission standards, no further testing will be performed on subsequent engine families or test groups that carry-over the durability data of the tested engine family or test group.

Notwithstanding the above, if a manufacturer fails to demonstrate compliance with the emission standards after one-third of its engine families or test groups have been tested, additional engine families or test groups shall be tested, by the manufacturer or its designated laboratory, at the manufacturer's expense, until compliance is demonstrated on one-third of the engine families or test groups or all of a manufacturer's engine families or test groups have been tested. In addition, any engine family or test group which has been tested and determined to be in noncompliance shall be retested by the manufacturer each subsequent year until compliance with the applicable emission standards has been demonstrated. Notwithstanding the above, the ARB may conduct engine enforcement testing pursuant to the engine test procedures specified in section 1956.8, at their own expense.

(2) Medium-duty vehicles may be tested according to the chassis test procedures specified in section 1960.1(k) or 1961, as applicable, if a manufacturer develops correlation factors which establish the relationship between engine and chassis testing for each engine family or test group and submits these correlation factors within one year after the beginning of production. The correlation factors shall be applied to the measured in-use engine exhaust emission data to determine the in-use engine exhaust emission levels. All correlation factors and supporting data included in a manufacturer's application must be submitted to and approved by the Executive Officer in advance of

Division 3. Air Resources Board

Chapter 2. Enforcement of Vehicle Emission Standards and Surveillance Testing

Article 2.3. In-Use Vehicle Enforcement Test Procedures

their use by a manufacturer. Correlation factors intended to apply to a specific engine family or test group shall be applicable for each vehicle model incorporating that specific engine. Manufacturers shall submit test data demonstrating the applicability of the correlation factors for vehicle models comprising a minimum of 80 percent of their engine sales for that specific engine family or test group. The correlation factors for the remaining fleet may be determined through an engineering evaluation based upon a comparison with similar vehicle models. The Executive Officer shall approve a submitted correlation factor if it accurately corresponds to other established empirical and theoretical correlation factors and to emission test data available to the Executive Officer.

A manufacturer may choose to use the results from the chassis in-use testing as a screening test. If an engine family or test group does not demonstrate compliance with any of the applicable in-use engine standards, as determined from the chassis test data and the applied correlation factors, the manufacturer shall be subject to the requirements and cost of in-use compliance engine testing, as specified in section 2139(c)(1). The manufacturer shall be subject to engine testing for any non-complying engine family or test group for each subsequent year until compliance with the engine emission standards is demonstrated.

Subsequent to approval of the correlation factors, the Executive Officer may make a determination that the original correlation factors are not valid. Such a determination may be based upon in-use emission data, including chassis and engine testing. Upon determination that the correlation factors for a specific engine family or test group are not valid, the manufacturer of the engine family or test group shall be subject to the enforcement testing requirements and costs of in-use compliance engine testing, as specified in section 2139(c)(1).

(3) The manufacturer shall choose one of the procedures specified in subsections (c)(1) through (c)(2). The Executive Officer shall permit the use of alternative test procedures if the Executive Officer determines the alternative test procedure adequately predicts the exhaust emissions from the engine test procedure specified in section 1956.8, Title 13, California Code of Regulations. Such a determination may be based upon correlation with test data from the engine test procedures.

(4) The time limits specified in subsections (c)(1) and (c)(2) may be extended by the Executive Officer if the manufacturer demonstrates that the time limits specified could not be achieved due to reasons beyond the reasonable control of the.

(d) For heavy-duty engines and vehicles, in-use compliance emission tests shall be performed pursuant to section 1956.8, Title 13, California Code of Regulations.

(e) For motorcycles, in-use compliance emission tests shall be performed pursuant to section 1958, Title 13, California Code of Regulations.

(f) For off-road motorcycles and all-terrain vehicles, in-use compliance tests shall be performed pursuant to section 2412, Title 13, California Code of Regulations. The in-use compliance testing shall use the same test procedure utilized for the specific vehicle's original certification testing.

(g) For off-road compression-ignition engines, in-use compliance tests shall be performed pursuant to Section 2423, Title 13, California Code of Regulations. The in-use compliance testing shall use the same test procedure utilized for the specific engine's original certification testing.

(h) For any emission in-use compliance test performed pursuant to subsections (a) through (g), the ARB may waive a specific test for subsequent vehicle samples if results from vehicle samples already tested are deemed sufficient to establish complying emission levels. The ARB shall inform the manufacturer at least 30 days prior to enforcement testing of its vehicles or engines and shall permit a manufacturer representative to observe the enforcement testing.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43103, 43104, 43105, 43106, 43107, 43204-43205.5 and 43211-43213, Health and Safety Code.

REFERENCE